



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,793	04/13/2001	Jung-Wan Ko	1293.1191	1932

49455 7590 02/14/2007  
STEIN, MCEWEN & BUI, LLP  
1400 EYE STREET, NW  
SUITE 300  
WASHINGTON, DC 20005

EXAMINER
----------

PICH, PONNOREAY

ART UNIT	PAPER NUMBER
----------	--------------

2135

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/14/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/833,793

Applicant(s)

KO ET AL.

Examiner

Ponnoreay Pich

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-11,13-18,20-30,32-35 and 41-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11, 13-18, 20-30, 32-35, and 41-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/2006</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1, 3-11, 13-18, 20-30, 32-35, and 41-47 are pending. Any objections or rejections ~~not repeated~~ below for record are withdrawn due to applicant's amendments. Any well known art statements made in the prior office action not specifically and/or adequately traversed by applicant are taken as admittance of prior art as per MPEP 2144.03.

#### ***Information Disclosure Statement***

As per the document listed in the IDS submitted on 9/5/2006, the examiner has crossed out the first reference because it is a reference previously cited by the examiner. Marking it as considered would result in listing of the same reference twice if the application is allowed. The second reference listed was initialed as considered.

#### ***Response to Amendment and Arguments***

Applicant's amendments were fully considered. Applicant's arguments were also fully considered. The examiner will only address those arguments which have not been rendered moot due to applicant's amendments and which are not persuasive.

With regards to claim 41, applicant has amended claim 41 to recite that the receiver is a "hardware receiver...." to overcome the 101 rejections made in the prior office action. This amendment does not overcome the rejection because while the preamble indicates that the receiver is hardware, a preamble is generally not accorded any patentable weight where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*,

Art Unit: 2135

187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In this case, the body of claim 41 does not depend on the preamble for completeness and while the preamble indicates the receiver is hardware, there is nothing recited in the body of the claim that could not have been implemented via software alone. Please note new rejections below made in response to this amendment.

With respect to claim 1, applicant argues that field 615 in Richards is field in which key data and other data are stored and not an encryption key itself, thus does not meet the requirements of a second encryption key. The examiner respectfully disagrees. Even if field 615 is just a field which stores key data, by applicant's very admission, key data, i.e. a key, is disclosed by Richards. Further, column 9, lines 16-20 and col 11, lines 22-24 discuss retrieval of the key and use of the key in cryptographic processing, thus Richards discloses the second encryption key. One skilled should appreciate that a key is data. Further, in the first full paragraph on page 12 of remarks submitted, applicant admits that the KTU contains a symmetric key which is used in encryption and decryption, thus it is unclear why applicant is arguing that the second key is not disclosed by Richards.

Applicant argues that Richard teaches the KTU ciphertext was created via use of the public key mdk\_pk while decryption is via use of not the public key, but instead the secret key mdk\_pk, thus Richards does not teach encryption of the first region using the first key and decryption of the first region using the first key. In response, applicant is directed to paragraphs 25 and 34 of applicant's specification where applicant discloses the first encryption key is either a common encryption key or a public key. As

Art Unit: 2135

understood by one skilled in the art, in a common/symmetric encryption key method, encryption and decryption is done using the same key. However, in a public/asymmetric key system, encryption is done using one key and decryption is done using the other key in the key pair. In light of applicant disclosing use of a public key as the first encryption key, the examiner assumed that when reading the claims, it would be valid to interpret the term "first encryption key" as referring to either the public key, the private key, or both keys in the public key system. Note claim 4, which is dependent on claim 1, even refers to use of a public key encryption method with the first encryption key. If this is not a valid interpretation, then the examiner respectfully submits that applicant's specification has failed to enable one of ordinary skill to understand how to practice applicant's invention when a public key is used as the first encryption key. That is, how would one use a public encryption system and do both encryption and decryption using just the public key of the key pair? By the very nature of a public key system, it is impossible to both encrypt and decrypt using just the public key. Thus, the examiner respectfully submits that interpreted in light of applicant's specification, encryption by Richard using the public key mdk\_pk and decryption via use of the secret key mdk\_pk reads on use of a first encryption key.

The rest of applicant's arguments towards art rejections are either directed toward dependency or are substantially the same as the arguments that are traversed above. The dependent claims are not allowable because the arguments for the independent claims are traversed. The arguments similar to the ones already traversed are also traversed for the same reasons given above.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 41-43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 41 recites a hardware receiver comprising an authenticator and a decryptor. While the preamble of the claim states that the apparatus being claimed is hardware, the body of the claim only recites components which one skilled should recognize could be implemented via software alone. Because the body of the claim does not rely on the preamble for completeness, claim 41 is rejected as being nonstatutory for being directed towards software per se. Claims 42-42 also do not recite any hardware and are also not statutory.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 2135

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-4, 16, 13, 18, 21, 30, and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Richards (US 6,385,723).

**Claim 1:**

Richards discloses:

1. Encrypting a first region of a text containing a second encryption key using a first encryption key (Fig 5, items 503, 507 and Fig 6, item 615). *The first encryption key is public key, mkd\_pk. The second encryption key is key data 615, seen in Figure 6.*
2. Encrypting a second region of the text using the second encryption key (col 6, lines 22-26 and col 7, lines 16-44). *Note that the AU contains encrypted regions that are encrypted using the symmetric key contained in the KTU.*
3. Transmitting a cipher text comprising the encrypted first and second regions (col 10, lines 10-13).
4. Transmitting the first encryption key, region segmentation information for segmenting the text into the first region and the second region, and information related to the second encryption key (col 6, lines 36-46; col 7, lines 33-37; col 10, lines 5-13; and Fig 6).
5. Decrypting the first region of the transmitted cipher text using the transmitted first encryption key and the transmitted region segmentation information (Fig 10, item 1003).

Art Unit: 2135

6. Extracting the second encryption key from the first region using the transmitted information relating to the second encryption key (col 11, lines 12-24 and Fig 10, item 1005-1009).
7. Decryption the second region of the transmitted cipher text using the extracted second encryption key (col 11, lines 12-24 and Fig 10, item 1005-1009).

**Claim 3:**

Richards further discloses wherein the first encryption key comprises an encryption key for use with a common key encryption method (col 6, lines 22-26 and col 7, lines 16-44). Note that symmetric key encryption and common key encryption are synonymous terms in the art of encryption.

**Claim 4:**

Richards further discloses the first encryption key comprises a public key for use with a public key encryption method (col 8, lines 40-42).

**Claim 16:**

Richards further discloses wherein the region segmentation information comprises information on a size of the first region of the text (Fig 6, item 613).

**Claim 13:**

Claim 13 is directed towards a copy protection method comprising decrypting and extracting steps substantially similar to the decrypting and extracting steps recited in claim 1. As such, claim 13 is rejected for the substantially the same reasons given above in claim 1.

**Claim 18:**



Art Unit: 2135

Claim 18 is directed towards a computer readable medium encoded with processing instructions for implementing a method substantially similar to the method recited in claim 1 and is rejected for substantially the same reasons given in claim 1.

**Claim 21:**

Richards further discloses wherein the first encryption key comprises an asymmetric key for use with an asymmetric key encryption method (col 8, lines 40-42).

**Claim 30:**

Claim 30 is directed towards a computer readable medium encoded with processing instructions for implementing a method substantially similar to the method recited in claim 13 and is rejected for substantially the same reasons given in claim 13.

**Claim 46:**

Claim 46 recites a method substantially similar to what is recited in claim 1 and is rejected for the same reasons. The difference is that claim 46 additionally recites that the first region of text including data to be extracted as a second encryption key. This limitation too is disclosed by Richards (Fig 6, item 615).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 7-11, 17, 15, 20, 22, 24-28, 32, 35, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards (US 6,385,723).

**Claim 5:**

Richards does not explicitly disclose wherein the second encryption key is smaller than the first encryption key where a common key encryption method is used. However, note that the second encryption key disclosed by Richards is a symmetric/common encryption key while the first is a public key. The examiner asserts that it is common knowledge in the art that common encryption keys are typically smaller than public encryption keys. As such, it would have been obvious to one skilled in the art to have the second encryption key smaller than the first encryption key in Richards invention. One skilled would have been motivated to do so because it is traditional that common keys are smaller than public keys. This allows faster encryption using symmetric encryption scheme while more secure encryption using asymmetric encryption scheme.

**Claim 7:**

Richards further discloses wherein the information related to the second encryption key includes size information of the second encryption key (Fig 6, item 313). Richards does not explicitly disclose that the information also includes position information of the second encryption key. However, the examiner asserts that the limitation was well known in the art at the time application's invention was made. Further, it would have been obvious to include key position information as part of the information in Richards's invention. One skilled would have been motivated to do so

Art Unit: 2135

because key position information is needed to determine where the key is in the KTU so that it could be extracted to decrypt the AU.

**Claim 8:**

Richards does not explicitly disclose wherein the position and size information of the second encryption key are fixed. However, the limitation was well known in the art. At the time applicant's invention was made, it would have been obvious to one skilled in the art to have the position and size information of the second encryption key fixed in Richards's invention. One skilled would have been motivated to do so because whether one made the position and size information of the second encryption key fixed or varied is an arbitrary design choice that is up to the preference of each designer. It is noted that applicant's specification also does not disclose any particular reason to choose one scheme over the other.

**Claim 9:**

Richards does not explicitly disclose wherein the position and size information of the second encryption key are varied. However, the limitation was well known in the art. At the time applicant's invention was made, it would have been obvious to one skilled in the art to have the position and size information of the second encryption key varied in Richards's invention. One skilled would have been motivated to do so because whether one made the position and size information of the second encryption key fixed or varied is an arbitrary design choice that is up to the preference of each designer. It is noted that applicant's specification also does not disclose any particular reason to choose one scheme over the other.

Art Unit: 2135

**Claim 10:**

Richards does not explicitly disclose wherein the first region of the text is smaller than the second region of the text. However, the examiner asserts that encryption schemes wherein a large region of text is encrypted using a symmetric key while a smaller region is encrypted using a public key was well known in the art at the time applicant's invention was made. Note that the smaller region typically contains the symmetric key used to encrypt the larger region. It would have been obvious to one of ordinary skill in the art to further modify Richard's invention such that the first region of the text is smaller than the second region of the text. One of ordinary skill would have been motivated to do so because this would allow larger regions to be encrypted faster using the symmetric key while the more costly asymmetric encryption scheme could be used to encrypt the smaller region containing the symmetric key, thus providing greater security to the storage of the symmetric key.

**Claim 11:**

Richards does not explicitly disclose wherein the region segmentation information comprises information on a starting address of the second region of the text. However, the examiner asserts that it was well known in the art to have region segmentation information comprise information on a starting address of text regions. At the time applicant's invention was made, it would have been obvious to one skilled in the art to modify Richards's invention according to the limitations recited in claim 11. One skilled would have been motivated to do so because it would allow proper decryption of the encrypted regions.

Art Unit: 2135

**Claim 17:**

Richards does not explicitly disclose wherein the first encryption key comprises an encryption key that is 56 bits or more. However, note that the first encryption key disclosed by Richards is a public encryption key. It was well known in the art that public encryption keys are typically at least 512 bits in length. At the time applicant's invention was made, it would have been obvious to one skilled in the art to modify Richards's invention such that the first/public key disclosed by Richards was 56 bits or more. One skilled would have been motivated to do so because public keys are typically long to ensure greater security.

**Claim 15:**

Claim 15 recites limitations that are a combination of what are recited in claims 5 and 10 and are rejected for the same reasons. Note that there is a slight difference in the wording of the limitation of claim 5 and a limitation recited in claim 15. Claim 5 recites that the second encryption key is smaller than the first encryption key while claim 15 recites that the size of the first encryption key is larger than the size of the second encryption key. The meaning is essentially the same, however.

**Claim 20:**

Richards does not explicitly disclose wherein the first encryption key comprises a symmetric key having 56 bits or more. However, symmetric keys comprising 56 bits or more were well known in the art at the time applicant's invention was made. It would have been obvious to one skilled in the art to modify Richards's invention such that the first encryption key comprises a symmetric key having 56 bits or more. One skilled

Art Unit: 2135

would have been motivated to do so because use of a symmetric encryption key for the first encryption key would allow faster encryption than use of an asymmetric key scheme.

**Claim 22:**

Claim 22 recites a limitation substantially similar to what is recited in claim 5 and is rejected for the same reasons.

**Claim 24:**

Claim 24 recites a limitation substantially similar to what is recited in claim 7 and is rejected for the same reasons.

**Claim 25:**

Claim 25 recites a limitation substantially similar to what is recited in claim 8 and is rejected for the same reasons.

**Claim 26:**

Claim 26 recites a limitation substantially similar to what is recited in claim 9 and is rejected for the same reasons.

**Claim 27:**

Claim 27 recites a limitation substantially similar to what is recited in claim 10 and is rejected for the same reasons.

**Claim 28:**

Richards does not explicitly disclose sending information on a starting address of the second region through a safe transmission path. However, the sending information to receiver about a region's starting address was well known in the art. It was also well

Art Unit: 2135

known to send information of sensitive nature through a safe transmission path. At the time applicant's invention was made, it would have been obvious to one skilled in the art to modify Richards's invention according to the limitations recited in claim 28. One skilled would have been motivated to send information on a starting address of the second region so that the second region could be properly decrypted. One skilled would have been motivated to use a safe transmission path for the sending of information so that unauthorized parties would not receive such information which they could then use to obtain secret information that has been secured.

**Claim 32:**

Richards does not explicitly disclose wherein the region segmentation information, the information related to the second key, and the first encryption key are received through a safe transmission path. However, sending information, especially confidential information, through a safe transmission path was well known in the art at the time applicant's invention was made. Region segmentation information, the information related to the second key, and the first encryption key are confidential information as only authorized parties should have access to them since they would allow decryption of privileged information. As such, at the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Richards's invention according to the limitations recited in claim 32. One of ordinary skill would have been motivated to do so because sending region segmentation information, the information related to the second key, and the first encryption key

Art Unit: 2135

through a safe transmission path would increase security and prevent unauthorized parties from gaining access to privileged information.

**Claim 35:**

Claim 35 recites limitation substantially similar to what is recited in claim 35 and is rejected for the same reasons.

**Claim 47:**

Claim 47 recites a method substantially similar to what is recited in claim 1 and is rejected for substantially the same reasons. One skilled should appreciate that in claim 1, since the second encryption key is located in the first region of the text, one would first have to decrypt the first region and extract the second encryption key before one can decrypt the second region, which was encrypted using the second encryption key.

Claims 6, 14, 23, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards (US 6,385,723) in view of McGough (US 6,445,797).

**Claim 6:**

Richards does not explicitly disclose wherein a size of the first encryption key is fixed and a size of the second encryption key is varied by a transmission unit within the first region. However, the examiner asserts that keys of fixed and varied lengths were well known in the art at the time the applicant's invention was made.



Art Unit: 2135

Further, McGough discloses a cryptographic system employing the use of two keys. The size of the first encryption key is fixed (col 4, lines 59-61) and the size of the second encryption key is variable (col 4, lines 39-46). In light of McGough's teachings, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified Richards's invention according to the limitations recited in claim 6. One of ordinary skill would have been motivated to do so as McGough discloses that his teachings would guarantee a mathematical and process impossibility of ever discovering or deriving the original key from the message key, making the only attack point of the system of no value (col 4, lines 46-50).

**Claim 14:**

Claim 14 recites limitations substantially similar to what is recited in claim 6 and is rejected for the same reasons.

**Claim 23:**

Claim 23 recites a limitation substantially similar to what is recited in claim 6 and is rejected for the same reasons.

**Claim 34:**

Claim 34 recites limitation substantially similar to what is recited in claim 6 and is rejected for the same reasons.

Claims 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards (US 6,385,723) in view of applicant's admittance of prior art.

Art Unit: 2135

**Claim 29:**

Richards does not explicitly disclose sending a cipher text comprising the first and second regions through an unsafe transmission path; and obtaining the safe transmission path through authentication operations. However, applicant discloses that it was well known at the time the applicant's invention was made to send cipher text through an unsafe transmission path and obtaining the safe transmission path through authentication operations (see specification, p3, paragraph 9).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified Richard's invention according to the limitations recited in claim 29 because the text is already encrypted, so sending it through an unsafe path would be faster than sending it through a safe path. Further, using authentication to obtain the safe transmission path would ensure that the path is actually safe, i.e. that an imposter is not asking for the secure path.

**Claim 33:**

Richards does not explicitly disclose receiving the encrypted text through an unsafe transmission path. However, applicant discloses that it was common in the art at the time applicant's invention was made to have received the encrypted text through an unsafe transmission path (specs, p3, paragraph 9). It would have been obvious to one of ordinary skill to have modified Richards's invention according to the limitations recited in claim 33 because it would unsafe transmission paths are typically faster than safe paths and it would allow the message to be received faster.

Claims 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admittance of prior art in view of Richards (US 6,385,723).

**Claim 41:**

Claim 41 is an apparatus claim directed towards a hardware receiver comprising an authenticator and a decryptor. Note that applicant discloses that a receiver which comprises an authenticator and a receiver was well known in the prior art as being part of a conventional encryption apparatus (specs, p2, paragraph 4 and Fig 1). Note that claims towards an apparatus must distinguish from the prior art in terms of structure rather than function (MPEP 2114). Claim 41 stating that the authenticator is "to obtain..." and the decryptor is "to decrypt..." describes functions of the components of the receiver apparatus (i.e. the authenticator component and decryptor component), thus in the strictest sense does not have any patentable weight. Further, because the body of the claim does not depend on the preamble for completeness, the preamble is not given patentable weight, thus the receiver being for implementing the copy protection method of claim 1 is interpreted as intended use language.

Further, it should be noted that the functions of the authenticator components recited in claim 41 is similar to the methods described in claims 32 and 13. Claims 32 and 13 were rejected over Richard and official notice by the examiner. Though applicant does not explicitly disclose the prior art teaching the authenticator and decryptor performing the functions as recited in claim 41, it would have been obvious to modify the prior art system seen in Figure 1 of applicant's specification such that the

Art Unit: 2135

authenticator obtains a safe transmission path through which a first encryption key, region segmentation information, and information related to a second encryption key are received. One skilled would have been motivated to do so because this would increase security in the prior art system by sending these information needed for decryption through a safe transmission path. It would have been obvious to modify the decryptor to perform decryption as recited in claim 41 according to the decryption method described by Richards in claim 13. One skilled would have been motivated to do so because Richards's teachings would provide for a key transfer and authentication technique that provides allows for secure transfer of smart card applications which may be loaded onto smart cards (col 2, lines 50-54). Note that Richards discloses that it is beneficial to store multiple applications on the same IC card (col 1, lines 55-56).

**Claim 42:**

Claim 42 further recites limitations which describe materials worked on by the receiver apparatus of claim 41. However, the patentability of an apparatus depends on its structure, not any material worked on by the apparatus (MPEP 2115). As such, the limitations recited in claim 42 does not bear any patentable weight and claim 42 is rejected for the same reasons given in claim 41. Further, it should be noted that the limitations recited in claim 42 are a combination of what are recited in claims 7 and 33 and can be rejected for the same reasons given in claims 7 and 33.

**Claim 43:**

Neither applicant's admittance of prior art nor Richards explicitly states that the receiver comprises an information appliance. However the examiner asserts that

Art Unit: 2135

computers being receivers in a cryptographic system was well known at the time the applicant's invention was made. Computers are information appliances. It would have been obvious to one of ordinary skill to further modified the invention as recited in claim 42 such that the receiver is an information appliance/computer. One skilled would have been motivated to do so because it would allow for automated cryptographic processing and because using computers as receivers which does authentication and decryption was common in the art.

**Claim 44:**

Neither applicant's admittance of prior art nor Richards explicitly states the receiver comprises a computer. However the examiner asserts that computers being receivers in a cryptographic system was well known at the time the applicant's invention was made. It would have been obvious to one of ordinary skill to have modified the invention as recited in claim 42 such that the receiver is a computer because it would allow for automated cryptographic processing.

**Claim 45:**

Neither applicant's admittance of prior art nor Richards explicitly states wherein the receiver comprises a hardware server. However, hardware servers were well known in the art at the time applicant's invention was made. It would have been obvious to one of ordinary skill to have modified the invention as recited in claim 42 such that the receiver is a hardware server because it would allow for secure communication between a client and server.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Fri.

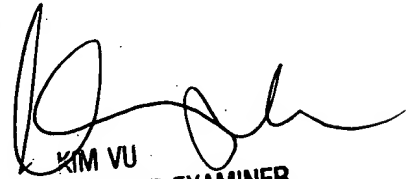
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2135

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ponnoreay Pich  
Examiner  
Art Unit 2135

PP

  
KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100